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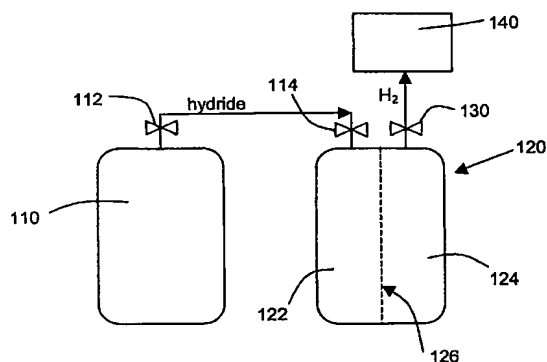
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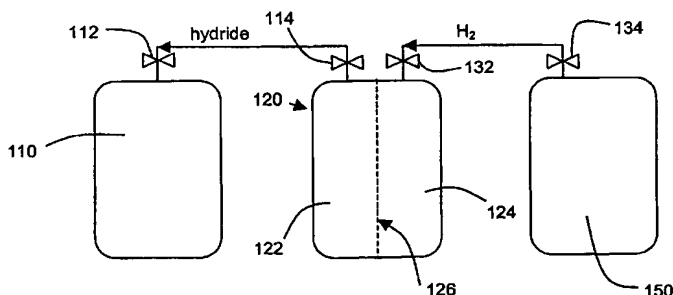
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(54) Title: **HYDROGEN GENERATION**



A



B

(57) Abstract: An apparatus and method including storage and dispensing vessels to safely store and dispense gaseous hydrides, where the storage and dispensing vessels contain a solid-phase physical sorbent medium having a physically sorptive affinity for gaseous hydrides, and wherein the gaseous hydride is decomposed in the apparatus to generate hydrogen gas. The gaseous hydrides include, but are not limited to, silane, germane, stibine and diborane. The gaseous hydrides decompose spontaneously and/or decomposition is enhanced using surface modified adsorbents. The hydrogen generated by the apparatus may be used in a fuel cell or other hydrogen gas consuming unit.

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